

# **Agency Sustainability Plan**

Prepared by the  
Department of Correction Sustainability Team

Submitted to the  
State Sustainability  
Coordinating Council  
February 2005

**Executive Office of Public Safety  
Massachusetts Department of Correction**

**Kathleen M. Dennehy, Commissioner**

March 8, 2005

Department of Correction Staff and Partners:

I am pleased to submit the first Sustainability Plan for the Department of Correction. The Plan was prepared by a team of DOC Sustainability Council members representing the agency in an effort to enable DOC to work toward a more environmentally sound and sustainable future. With your help, these same staff will now work to implement the Plan with the help of each facility.

It is becoming increasingly clear that our society faces serious environmental issues. From concerns over climate change, to water shortages to air quality, environmental issues affect the quality of life in our communities here in Massachusetts and around the world. This Plan sets long-range goals for the Department of Correction that includes upgrades to facility infrastructure that over the long term will improve our environmental while in many cases reducing operating costs.

Additionally, the Plan proposes specific environmentally sustainable actions and strategies in a wide number of key areas that will enable us to take more concrete and achievable steps toward our goals. These sustainable practices can also frequently make economic sense by cutting our fuel and electricity costs, lowering our waste disposal fees, and reducing water usage and sewer bills. The Department of Correction has undertaken an aggressive recycling program and after only two years of operation we have since savings.

As an agency, we are charged with ensuring the public safety while operating the state correctional institutions. Now, we are acknowledging that *how* we do our job is also a critical component of our mission.

After you read this document, consider what you can do to improve the way you do your job. Start small. Be practical. Ask for help when needed. Consider the whole story. And do not forget to share your successes with your co-workers. If it's worthy of praise, then it's worthy of replication. Together our efforts will add up to a more livable and healthier state in which everyone can thrive.

Sincerely,

Kathleen M. Dennehy  
Commissioner

## Table of Contents

Massachusetts Department of Correction Description Agency Description and Scope	4
Mission	4
Plan Implementation	5
Agency Impacts on the Environment and Human Health	5
Department of Correction Sustainability Council Members	6
Long-Term Goals	6
Efficient Use and Conservation of Energy, Water, and Other Resources	6
Water Conservation	7
Energy Use Reduction	7
Sustainable Construction and Maintenance Projects	7
Minimize Solid Waste Production	8
Environmentally Responsible and Strategic Purchasing	9
Hazardous Material Use Goal	9
Priority and Short Term Goals	10
Management Systems and Institutionalization	10
Education and Training of Staff	10
Management Systems	10
Sustainability Implementation Guide	11
Measuring to Ensure Ongoing Performance	11
Agency Tracking and Reporting Form	11
Continuous Improvement	12

## Massachusetts Department of Correction Description Agency Description and Scope

In recognition of state government's environmental impact and its potential to address a number of environmental concerns, the State Sustainability Program was established in July 2002 by Executive Order No. 438 (E.O. No. 438). The Order calls on all state agencies to "work diligently and expeditiously to develop and implement policies and procedures to promote environmentally sustainable practices," and established a governing Coordinating Council, made up of key agencies and offices. The full Executive Order No. 438 is available on the State Sustainability Program website at <http://www.mass.gov/envir/sustainable>.

The Massachusetts Department of Correction is a state agency within the Executive Office of Public Safety (EOPS). The Department of Correction is directly responsible for the 18 correctional facilities operated by the State. The DOC works with County operated facilities and provides support with local agencies. The Massachusetts Department of Correction employs nearly 5,000 correction officers, correctional program officers, maintenance staff and other support professionals to oversee the operation of the state's prison system. Approximately 10,000 inmates are incarcerated at our 18 institutions (male and female). These institutions total approximately six million square feet of building floor space including but not limited to:

- Inmate Housing
- Food Services
- Garages
- Healthcare
- Education, including Vocational
- Industrial Shops
- Administrative and Support Services including power plants, water treatment and wastewater treatment plants.

The concept of sustainability is where one resource which is used today are those that **"meet present needs without compromising the ability of future generations to meet their needs"** [1987 UN Council Meeting].

### Mission

The Department of Correction is committed to protecting, preserving, and in some cases restoring the environment. The Department will accomplish this through water and energy conservation, recycling programs, utilizing environmentally preferred products, technology and the education of staff. The Department is committed to working collaboratively with other agencies, local communities, and stakeholders to promote a more environmentally sound and sustainable future.

By integrating environmentally sustainable practices into state agency policies, procedures, and operations, and fostering collaboration across state government, the State Sustainability Program works to protect and enhance the quality of life for current and future generations of the Commonwealth.

## **Plan Implementation**

Within the Department of Correction, the Division of Resource Management (DRM) provides the architectural, engineering, and environmental expertise as required for the efficient management and safe operation of the institutions in the DOC. DRM will work with the facilities and be on the “front line” of implementing programs or procedures to achieve sustainable practices.

Several strategies will be implemented by the Department of Correction to implement sound sustainability practices. The development and issuance of a broad policy statement will provide the foundation for educating employees and prioritizing sustainability as a key organizational activity. Within the policy, the importance of sustainability and its meaning to the Department will be identified as well as a specific policy statement that communicates the Department of Correction’s values with regard to sustainability. An organizational structure has been established by the DOC and will be implemented within each facility. This organizational structure will include the identification of a lead contact at the facility and the identification of one or more assistants to support the lead contact, and the identification of sustainability workers throughout all operating divisions of the Department.

It will be the responsibility of this organizational structure to further advance educational initiatives for departmental employees. This organizational structure will conduct periodic follow-up activities at management meetings. Through this structure, best practices will be identified on a continuing basis, evaluated, and communicated internally for consideration for expansion to other operating areas. Operational cost savings will highlight the payback for implementation of sustainability initiatives and efforts.

Also, the Department will investigate any opportunity to assist sustainability efforts of other State agencies. At every opportunity of initiating sustainability activities or partnerships, examinations will be made regarding the use of inmate labor as a part of the program. Where feasible, the use of inmate labor could prove to be a very valuable asset to the sustainability initiative.

## **Agency Impacts on the Environment and Human Health**

The DOC operates 24 hours per day 7 days a week. The activities conducted by the DOC that could have an impact on the environment include:

- Administrative Responsibilities
- Inmate Housing and Care
- Vehicle/Equipment Maintenance
- Food Preparation
- Laundry Operations
- Snow Removal
- Building Maintenance
- Water Supply and Waste Water Treatment
- Power Plant Operation

The normal operations of the Department of Correction utilize the following resources:

Electricity, water supply, hazardous waste disposal, solid waste disposal, paper, office supplies/equipment, fuel for power plants, heating and vehicles, salt/sand runoff, vehicle emissions, wastewater, universal waste disposal and stormwater discharge.

### **Department of Correction Sustainability Council Members**

The Department of Correction sustainability Council consists of the following members:

James Bender	Deputy Commissioner Department of Correction
Peter Pepe	Superintendent MCI-Concord
Paul Blaney	Superintendent MCI- Plymouth
William Homans	Environmental Health and Safety Officer NCCI-Gardner
Gerald Trahan	Fire Safety Officer/ Environmental Health and Safety Officer Old Colony Correctional Center
Joe Luiz	Director of Engineering Bridgewater State Hospital
Jeffrey J. Quick A.I.A.	Director Division of Resource Management
Andrew Bakinowski, L.S.P.	Project Manager Division of Resource Management
Darlene Haigh	Executive Assistant Division of Resource Management

### **Long-Term Goals**

Four long-term goals have been established for our sustainability efforts.

### **Efficient Use and Conservation of Energy, Water, and Other Resources**

The Department recognizes the need and the importance of conservation efforts and the efficient use of our resources during its every day operation. The Department has already initiated audits and tracking of energy consumption and will strive to further minimize the consumption of energy, water and other resources by eliminating wasteful practices and promoting efficient use. The Department of Correction has signed agreements to complete work at the Norfolk/Walpole Complex and Bridgewater Complex that will include replacement of older heating equipment and installation of energy conserving lights and fixtures. This work will also replace inefficient electrical equipment.

## Water Conservation

The Department of Correction is committed to reducing water usage at the DOC facilities by at least 10% by 2010, based on 2003 baseline levels, by achieving more efficient water use, including improving employee behavioral practices, replacing inefficient fixtures, repairing leaks, reducing water used in landscaping, rainwater collection and investigating grey water reuse opportunities.

- High efficiency appliances
- Install waterless urinals wherever feasible
- Install low flow toilets
- Low flow and metered faucets/showers
- Set periodic reduction goals and track savings in dollars, volume and habitat impacts

## Energy Use Reduction

The DOC has just under taken a 20 year project at improving energy efficiency at the Norfolk/Walpole Complex and the Bridgewater Correctional Complex. These two complexes are some of the largest and oldest correctional institutions maintained by the DOC. Through the improvement and up-grade of the boiler systems and replacement of existing motors, and lighting with energy efficient units there will be a direct and measurable reduction in greenhouse gas emissions. The DOC will continue to explore other means of energy efficient equipment, conservation, use of alternative fuels and renewable energy, and changes in employee practices.

Other areas that the DOC will pursue as practicable:

Support public transit use to facilities;  
Support bicycle commuting with covered and secure racks;  
Use low emission vehicles, renewable fuels and hybrids;  
Energy audits and retrofits for high energy consumption buildings;  
Commission and maintain all building HVAC systems to ensure employee productivity and energy efficiency;  
Increased insulation (roof, wall, floor);  
Double paned, insulated windows;  
Programmable thermostats;  
Natural airflow to encourage passive cooling;  
Efficient lighting and appliances; and  
On-demand hot water and occupancy sensors.

## **Sustainable Construction and Maintenance Projects**

While construction of new prisons is not expected to be a significant consideration, renovations will carefully consider utilizing renewable materials and LEED standard in the design. The maintenance work conducted on a daily basis will have a significant impact on the use of resources. The Department will incorporate energy and resource conservation opportunities, use of recycled products, and limit environmental impact to the extent possible.

- Design buildings to meet applicable LEED standards;
- Have maintenance and operations staff review all designs and specs to ensure low life cycle costs;
- Specify reuse and /or deconstruction to extend the life of the building or high value material;
- Have key staff attend LEED training;
- Require construction contractors to develop waste management plans; and
- Publicize sustainable design and energy efficiency features to staff.

### **Minimize Solid Waste Production**

The Department recognizes the need and the importance of reducing the generation of solid waste from its operations. The Department will establish policies and processes that will reduce the generation of solid waste through reduction, reuse, and recycling. The DOC has undertaken a successful recycling program that has shown a savings to date of over \$125,000.00.

The DOC will achieve a 50% recycling rate by 2010 and implement comprehensive and cost effective waste prevention programs.

During FY 2004, the DOC implemented its agency-wide recycling program which produced a 25% recycling rate, resulting in an economic benefit of \$126,241 by reducing the amount of solid waste generated.

- To increase the DOC recycling rate annually by 5% for the next five years.
- To continue membership of EPA's WasteWise Program.
- To continue to train and educate staff in ways that promotes reductions of solid waste generation at work, at home and in the community.
- To initiate a paper and postage reduction campaigns and utilizes the Internet, Intranet and other electronic media for distribution of documents and materials.
- To evaluate the feasibility and cost benefits of implementing an in-vessel composting system regionally within the DOC.
- To evaluate the recycling equipment needs at the correctional institutions, divisions and regional transfer facilities.
- Conduct regional meetings with institutional and division recycling coordinators and recycling transfer facility staff in order to improve recycling efforts, solicit ideas and give feedback.
- To incorporate recycling language into RFRs to document construction project weights of materials recycled to ensure proper handling and disposal of materials.
- To use the state surplus property system in order to promote the reuse of equipment and save money.
- To rent or lease equipment or supplies keeping in mind their energy efficiency, abilities to reduce material usage and reuse potential.



## **Environmentally Responsible and Strategic Purchasing**

The Department recognizes the need and the importance of making purchases that will obtain the best value by balancing short and long-term costs when purchasing product, goods and services. With strategic purchasing policies in place the Department will look to standardizing products, etc., which will create opportunities for bulk purchases and lower costs.

- Purchase EPP products that cost less, including, but not limited to remanufactured toner cartridges, recycled mulch and recycled antifreeze;
- Purchase energy efficient office equipment, appliances and light bulbs;
- Purchase less or non-toxic products including bio-based lubricants;
- Purchase less toxic cleaners, carpeting and paints with low volatile organic compounds to improve indoor air quality; and
- Use statewide contracts whenever possible to identify and purchase EPPs

## **Hazardous Material Use Goal**

The Department of Correction will reduce the amount of hazardous waste that is generated for disposal by identifying environmental preferable alternatives and recycling materials as much as possible. Reduce the amount of hazardous waste that is generated for disposal by identifying environmentally preferable alternatives and recycling materials as much as possible. Through awareness and staff training the Department intends to maintain compliance and prevent hazardous releases into the environment ensuring that all facilities have in place appropriate and comprehensive management systems to guarantee compliance and prevent releases by 2007.

### **Hazardous Material Use Best Practices**

- Purchase flat screen monitors to reduce bulk and toxicity of CRT disposal;
- Recycle fluorescent bulbs;
- Utilize latex paint versus oil base paint;
- Proper disposal/recycling of electronics and hazardous waste (oil, mercury, thinners);
- Purchase no toxic release inventory chemicals;
- Eliminate use of disposable aerosol cans;
- Remove and replace all mercury switches where applicable;
- Clean equipment in areas that do not drain into waterways;
- Mow strips under fence lines and use a weed fabric barrier in the areas where grass or weeds are unwanted (i.e. perimeter zones) to reduce the use of herbicide;
- Recycle batteries with local suppliers (automotive, radio, other types of batteries)
- Establish formal hazardous waste management practices at facilities;
- Attend periodic trainings to learn about new regulatory requirements; and
- Use recycled plastic timbers as an alternate to existing pressure treated materials.

## **Priority and Short Term Goals**

The priority areas for the Department of Correction are: recycling and resource use.

Short-term actions will focus on the following four priority areas. These areas were selected and prioritized in this order based on the ability of the agency to make the most progress in that area.

- A. Reduce energy consumption.
- B. Increase use of environmentally friendly cleaning and maintenance products.
- C. Reduce the generation of solid waste.

## **Management Systems and Institutionalization**

### **Integrating Environmental Impacts into Key Decision Points**

Review of projects by DOC staff and the Division of Capital Asset Management address the many impacts of the building project and integrate environmental design into the decision-making.

## **Education and Training of Staff**

Department of Correction staff actively participates in numerous internal and external training and educational programs. Through these programs DOC staff gain awareness and exposure to issues regarding sustainability issues.

The Division of Resource Management includes licensed professionals that includes engineers and an architect. Their job requires that they keep up to date on the current building requirements. Other professionals are responsible for resource usage (water and waste water) and environmental compliance. Periodic meetings within the DOC for management and staff

Understanding the interconnections among economy, society, and environment, education and training is a key component to DOC's strategy for sustainable success. By the end of 2005 the Sustainability Team will present the Sustainability Plan to all DOC facilities and staff. In addition, we will encourage procurement and other key staff to attend the annual OSD Buy Recycled and EPPs Vendor Fair and Conference to educate people on the importance of EPPs and the availability of them on state contract. Information about ways employees can reduce energy costs, reduce water consumption and increase recycling will be provided to staff. In addition, DOC staff will be encouraged to attend sustainable design and hazardous material management training programs.

## **Management Systems**

The Department has an ISO 14001 Certified EMS in place for our Norfolk facility. The lesson and experience learned from this plan have been used in concept and practice at other DOC locations.

The DOC has had formal training and completed the implementation of an Environmental Management System (EMS) at the MCI-Norfolk Facility. With the Clean States program and experience with and implementation of the EMS at MCI-Norfolk, this experience is carried over to the other DOC facilities. A primary function of the DOC's Division of Resource Management is to monitor environmental compliance. Licensed professionals include Professional Engineers, Licensed Architects and Licensed Site Professionals compliment the goals of the Sustainability Plan and the function in place.

### **Sustainability Implementation Guide**

Integrate environmental responsibilities into job descriptions and performance reviews as appropriate;

Incorporate environmental considerations into standard operating procedures;

Establish a written agency sustainability policy that sets a broad vision for the staff and includes specific operational guidelines for various agency operations;

Provide the opportunity for employee feedback to review program efforts; and

Include top-level management in the activity prioritization process.

### **Measuring to Ensure Ongoing Performance**

The ability to implement the Sustainability Plan is predicated on the ability to have those people who may be affected or be responsible to understand the benefits of the short and long term goals. Any plan is a constantly evolving process but once a decision is made that will affect positive changes in procedures, it is essential to keep it moving toward the long term goals. The tracking, reporting and striving for continuous improvement ensure that we don't become complacent with early success. The sections below describe how DOC will continue its sustainable efforts over time.

### **Agency Tracking and Reporting Form**

The DOC will utilize the forms created by EOEa for reporting – the Agency Tracking and Reporting Form. The DOC sustainability group will meet every other month. Specific requests would follow the fiscal year accounts payable period that has ended. Working with the finance staff and other staff responsible for collecting and tracking data to review from and make assignments and timelines for collecting the information. The team will meet again in the beginning of October to review progress. The information will be compiled by the sub-committee and reviewed by the agency Sustainability Coordinator and the Commissioner prior to submission to the State Sustainability Council in November of each year.

**Continuous Improvement**

The state sustainability team will need to meet every 2 months for reports from sub - groups and committees on their short-term action plan tasks. A tracking device will be developed for the shared drive to tract sustainability program projects. This type of tracking device would enable each sub committee to update their progress and have it viewed by the larger group. In addition, the Sustainability Team will provide annual progress reports to the Commissioner outlining accomplishments over the past year and proposing a work plan for the following year.

S:\Resource Management\DOC Sustainability Council\Agency Sustainability Plan.doc